CLAIMS

1. An electric double layer capacitor comprising an element formed by disposing a separator between a positive electrode and a negative electrode made of carbonaceous electrodes, and a non-aqueous electrolyte impregnated to the element, wherein said separator comprises a sheet having a thickness of from 10 to 100 μm and a porosity of from 50 to 90%, and a netted spacer having a thickness of from 10 to 80 μm, a numerical aperture of from 30 to 80% and an opening of from 50 to 350 mesh, laminated one on the other.

2. The electric double layer capacitor according to Claim 1, wherein the netted spacer is a net made of fibers of a polyester, a polyimide, a fluorine-containing polyolefin or a polyphenylene sulfide.

3. The electric double layer capacitor according to Claim 1 ~~or 2~~, wherein the netted spacer is a net made of fibers having a fiber diameter of from 10 to 80 μm.

4. An electric double layer capacitor comprising an element formed by disposing a separator between a positive electrode and a negative electrode made of carbonaceous electrodes, and a non-aqueous electrolyte impregnated to the element, wherein said separator comprises a sheet having a thickness of from 10 to 100 μm and a porosity of from 50 to 90%, and a spacer layer formed of particles having an average particle size of from 0.1 to 20 μm, and having a thickness of from 10 to

80 μm and a porosity of from 50 to 85%, laminated one on the other.

5. The electric double layer capacitor according to Claim 1, ~~2, 3 or 4~~, wherein the sheet is made of cellulose paper.

6. The electric double layer capacitor according to Claim 5, wherein the cellulose paper is paper prepared to contain at least 50 wt% of fibers obtained by beating regenerated cellulose fibers.

7. The electric double layer capacitor according to Claim 1, ~~2, 3, 4, 5 or 6~~, wherein the carbonaceous electrodes comprise a carbon material having a specific surface area of 100 to 2500 m^2/g and an organic binder.

8. The electric double layer capacitor according to Claim 1, ~~2, 3, 4, 5, 6 or 7~~, wherein the non-aqueous electrolyte comprises a solute which is a salt comprising a quaternary onium cation represented by $R^1R^2R^3R^4N^+$ or $R^1R^2R^3R^4P^+$, wherein each of R^1, R^2, R^3 and R^4 which are independent of one another, is a C_{1-6} alkyl group, and an anion of BF_4^-, PF_6^-, $CF_3SO_3^-$, AsF_6^-, $N(SO_2CF_3)_2^-$ or ClO_4^-, and a solvent which is at least one member selected from the group consisting of propylene carbonate, ethylene carbonate, dimethyl carbonate, diethyl carbonate, methylethyl carbonate, acetonitrile, sulfolane and methylsulfolane.